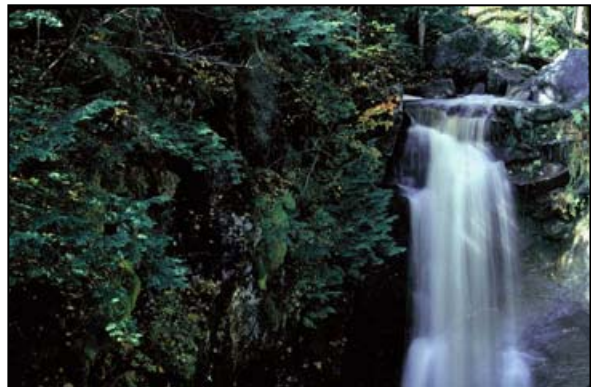


Royalston Open Space & Recreation Plan

2004-2009



Prepared By:

The Town of Royalston Open Space & Recreation Plan Committee and
McGregor & Associates, P.C.

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Section 1: Plan Summary

Royalston's Open Space and Recreation Plan reflects the town's desire to protect, maintain, and diversify the open space and recreation opportunities available to its citizenry. Royalston acknowledges the value of existing open spaces—in terms of aesthetics, health, welfare, the economy, and recreation—for the Town. At the same time, it recognizes the need to maintain lands in active use, and to balance local fiscal needs and tax-base concerns with conservation efforts.

Ultimately, the quality of life for all of Royalston's residents is enriched by the quality of the open space in the Town and region, whether the space be enjoyed for recreational activity or green tranquility. An inventory of the Town's parks, fields, and other large and small open spaces helps to identify the open space planning priorities for the next five years.

This plan also offers an overview of Royalston's history, physical development, and environmental characteristics. The 1990 Open Space and Recreation Plan Requirements guided the plans' development for compliance with Self-Help Grants administered by the Executive Office of Environmental Affairs, Division of Conservation Services and the Open Space Planners Workbook. This Open Space and Recreation Plan's acceptance by the State Division of Conservation Services makes Royalston eligible to compete for such funds, which the Town can use for land acquisition and improvement of parks and other open spaces. This plan is also useful as a community information resource and as a guide for government planning.

Section 2: Introduction

2.1 Statement of Purpose

Open space provides many kinds of recreation opportunities for residents, valued habitat for flora and fauna, public health and aesthetic benefits and a healthy dose of beauty in Royalston's unique setting. The purpose of this plan is threefold:

- to increase awareness concerning the open space and recreation needs and opportunities in Royalston;
- to encourage thoughtful planning and a sustained commitment to open space protection, care taking, and enhancement; and
- to outline a five-year plan of action with the Town agencies and Royalston's community organizations for the protection, care taking, and enhancement of land in the Town.

Importantly, this document includes elements of a *physical* plan (concerned with existing and proposed properties, facilities, and infrastructure), an *organizational* plan (concerned with the formal and informal organizational structures the Town has for maintenance, management, and overall decision-making related to open space and recreation), and also is an *informational* resource (inventorying and describing resources, discussing past successes and present challenges, and in general "telling the Royalston open space story").

It is hoped and expected that this Plan will be a "living document" to guide the Town of Royalston, that it will be consulted on a daily basis by citizens and decision-makers and evaluated and updated periodically. A number of the action items in Section IX speak directly to ways to accomplish this goal.

2.2 Planning Process and Public Participation

This Plan represents the first effort at local open space planning in Royalston. In winter 2001-2002, the State's Executive Office of Environmental Affairs ("EOEA"), through its then-active "Watershed Initiative", issued a request for proposals for a project involving both regional and local planning efforts in the Millers River Watershed, including specific tasks related to the preparation of a local Open Space and Recreation Plan for Royalston. After a competitive bidding process, a team led by McGregor & Associates, P.C., was selected to complete the project. The contract was finalized and work on the plan began in mid-2002.

Although the source of this funding was state/regional in nature, the scope specifically called for local direction of the consultant team in developing local open space plans. Thus, though funded by the State, the consultants were working for the Town on this project.

The public participation component of the process involved a number of simultaneous and mutually reinforcing tracks, as follows:

- 1) Open Space Planning Committee: The Planning Board and Conservation Commission worked jointly as an Open Space Planning Committee for the purpose of coordinating consultant work, encouraging public input, and developing this plan. The first meeting of this joint group was advertised and held in November 2002, and the group met regularly after that. A number of citizen volunteers attended meetings as well and provided the Committee with their input.
- 2) Community Forum: On February 11, 2003 the Committee hosted an initial Open Space and Recreation Forum in Town Hall, attended by approximately 23 residents. Issues discussed and input received at this forum helped to form the plan's goals and objectives. The final draft of the plan was presented to the community at a second forum in April 2004.
- 3) Open Space Survey: The Open Space and Recreation Committee developed, organized and distributed an attributes survey to town residents that was sent out in a Community Newsletter mailing at the beginning of this project. The Committee also summarized and analyzed the information in graphical and tabular form and translated it into usable results for the final Open Space and Recreation plan after the surveys were returned. Of these surveys, 66 were returned. The result of this effort and hard work was that the survey helped form the plan's goals and objectives which are summarized in Section 10.

Section 3: Community Setting

3.1 Regional Context

Royalston is located in north-central Massachusetts on the New Hampshire border (Richmond and Fitzwilliam, NH). To the east lies Winchendon; to the south are Templeton, Phillipston, and Athol; and to the west are the towns of Orange and Warwick. Nearby regional cities include Gardner (18 miles), Fitchburg (29 miles) and Worcester (43 miles), all to the southeast of Royalston. Greenfield, MA (30 miles) and Keene, NH (20 miles) lie to the west and north. Royalston is 74 miles from Boston.

Royalston is in the Millers River Watershed, which includes approximately 200,000 acres in Massachusetts and another 50,000 in New Hampshire. Major local and regional water bodies include the Millers River, Tully River, Tully Lake, Lawrence Brook, Stockwell Brook, and a number of smaller brooks and ponds. The Royalston State Forest, the Millers River Wildlife Management Area, the Birch Hill Wildlife Management Area, and parts of the Fish Brook Wildlife Management Area are all located in Royalston. A number of other significant local and regional open space properties and recreational resources are located in the Town, including parts of the Tully Loop Trail, private conservation land, three scenic waterfalls, and land managed by the Army Corps of Engineers for campground, recreation, and flood control purposes.

The Town is located in Worcester County and is part of the Montachusett Regional Planning Commission region. Royalston is accessible by State Route 68, which cuts through the Town from West Royalston to Phillipston and State Route 32, which runs north south through the Town from New Hampshire to Athol.

3.2 History of the Community²

Royal-shire was settled by six families in 1762 and was established as the town of Royalston on February 19, 1765. The town was named after the Honorable Isaac Royal, a Tory who had donated money and land for the settling of Royalston.

Royalston had considerable economic growth from 1776 to 1800 as the harnessing of waterpower made possible the establishment of local tanneries, grist and saw mills. The population grew during those years from 617 in 1776 to 1243 in 1800. Agriculture and raising sheep were the main means of earning a living for many Royalston residents.

In the early 1800's Royalston had two centers of population. Royalston Center, also called Royalston Common, was the geographic center of the town; gristmills, brick yards, tanneries, a hattery and cabinet shops stretched from the Common southwest to Doane's Falls. Shoppers came from miles around to do their business in Royalston Common.

In the early 1800's the village of South Royalston was established from parts of Athol and Gerry (now called Phillipston). South Royalston is situated 4.2 miles to the south of the Common, and by 1813 its own mills and small businesses were developing

² Provided by Tom Musco, Planning Board Chair.

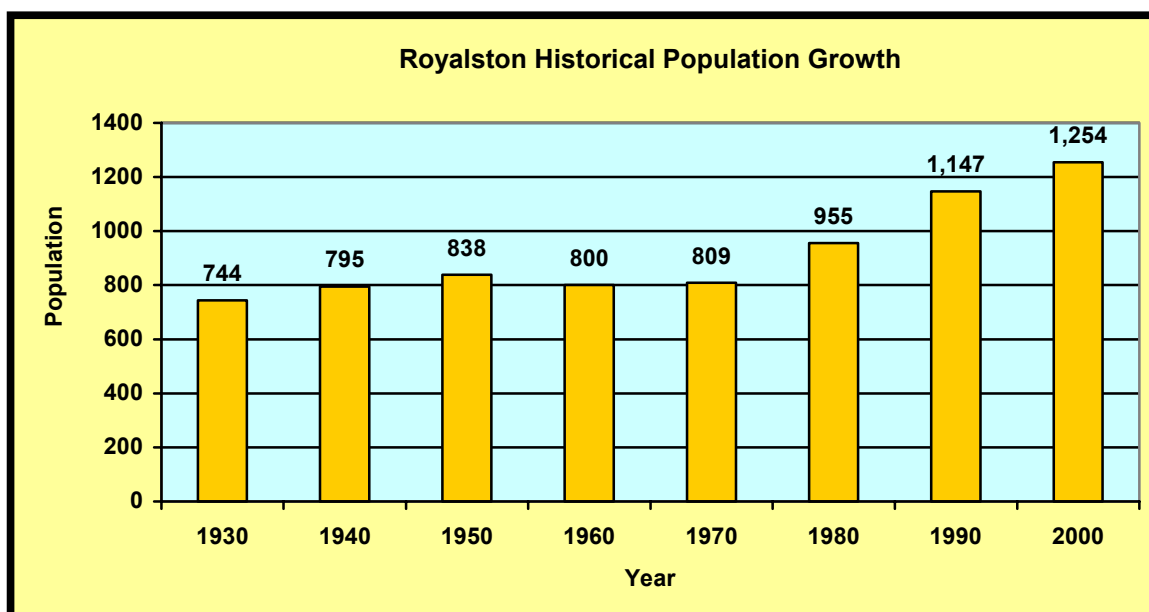
separately from those in Royalston Center. A cotton and woolen mill was built along the Millers River, furniture shops sprang up, and palm leaf businesses, mainly making Panama hats, thrived there.

In the 1840s, Irish immigrants who had worked on the railroads bought farms in South Royalston or worked in the mills there. A wave of Finnish immigrants came to South Royalston between 1880 and 1920 to work in the mills, and today, many of their descendants still live in South Royalston.

The population peaked in Royalston in 1840 with 1,667 residents, but by the late 1800s Royalston's decline as an industrial center had begun. Some businesses were destroyed by fire, while others fizzled naturally. The loss of population due to westward migration and epidemics, as well as the loss of two banks to more commercial towns, were also factors in Royalston's industrial decline. The population had decreased to 998 by 1900; South Royalston had by then lost all of its industries, and became the residential village, which it remains today.

3.3 Population Characteristics

In 1790, the year of the first federal decennial census, Royalston had a population of 1,127, nearly identical to the present population of 1,254 (2000 U.S. Census).³ In 1930 the population was as low as 744, but it has climbed fairly steadily throughout the last century (with a two-decade dip in 1960 and 1970) to its current level.



³ 1790 Census figures courtesy of Ann's Royalston, MA Genealogy & History page [<http://home.att.net/~mensch-family/worcester.htm>], based on review of microfilm; 2000 figure from U.S. Census.

As of the 2000 census, 29.1% of the Town's population was under the age of 18, a significantly higher figure than for the county (25.6%) or the state (23.6%). At the same time, the Town's percentage of residents over 65 (9.8%) was significantly lower than the corresponding figures for the county and state (13.0% and 13.5%, respectively). Thus, while the Town's median age of 38.0 was slightly higher than that for either the county (36.3) or the state overall (36.5), in some respects the Town's population is actually younger. This pattern is most likely indicative of a large number of families with children living there, and relatively few younger adults in the 20-34 year old group. Indeed, 38.5% of the households in Town have children under 18, as compared to lower figures of 35.9% and 32.9% for the county and state.

More complete data from the 2000 U.S. census is provided in Appendix D, including data on race and ethnicity, age distribution, educational attainment, employment, income, and home ownership and housing.

3.4 Growth and Development Patterns

Historically, growth and development in Royalston has been limited to agricultural and forestry operations, and residential development clustered around the village centers of West, Central, and South Royalston or spread along existing roads. A great deal of the land area in the Town has been acquired for permanent open space preservation through the efforts of public and private groups: approximately 27%⁴ of the Town (7,341 acres) is designated as permanently protected open space. In addition, much of the remaining un-built land consists of wetlands, poorly draining soils, steep slopes, or land otherwise unsuitable for new development.

Nonetheless, due to the large size of the Town and the relatively low-level of current development, a great deal of theoretically developable land remains. According to the recent build out analysis conducted by the Montachusett Regional Planning Commission in 2002, of the nearly 42 square miles (26,805 acres) in the town, approximately 64.5% (17,299 acres) was determined to be developable under current zoning and land use regulations.

If developed under the current zoning to its maximum build out levels, these 17,299 acres could be converted to 4,784 new house lots with a total of 5,223 new units and approximately 14,250 new residents.⁵

The full EOEA/MRPC build out data and maps are presented in Appendix E.

⁴ MassGIS and Franklin Regional Council of Governments (This data is **NOT** a part of MRPC's Buildout Analysis)

⁵ Great caution should be exercised in interpreting these figures. They present the Town with a snapshot of existing land use and development potential so that the Town can consider these factors in future planning decisions. As with any build out analysis, it must be understood that these figures are purely theoretical – what could be built on existing land under the current zoning, with no consideration of economic or market factors, or assumptions regarding how long such a buildout would take. Note, also, that these numbers apparently do not even subtract all the land has been permanently protected (the figures for protected land and the "potentially developable land" add to more than the total land area for the entire town). In theory, the Town might not realistically reach this build out level for hundreds of years, or ever. In all likelihood, the Town can expect to see continued development over the next 10-20 years consistent with historical levels of about 50 new units per decade.

Section 4: Environmental Inventory & Analysis

4.1 Geology, Soils, & Topography

Royalston's land area is approximately 41.99 square miles, almost 27,000 acres. The terrain is rugged with elevations running to 1,340 feet in the west and 1,000 feet in the east. The 1920 soil survey according to the Natural Resources Conservation Service of the US Department of Agriculture (Holden Office) indicates that the soil throughout Royalston is mostly rough and stony with some areas of loam with the most prevalent type of surficial geology being till or bedrock. Glacial tills, which consist of unconsolidated sand, gravel, silt and clay, remain from glaciers in the Pleistocene Era as they moved south carrying scrapings from the bedrock. As temperatures warmed overtime, the ice sheets left sediment and water behind. This glacial activity combined with the rivers, streams and brooks of current times have given Royalston a unique and treasured landscape. Interestingly, till is often already so acidic that it cannot appropriately buffer acidic rain, which creates a higher acidity level in surface water. While this does not have an immediate affect on the visual appeal of the specific water body, it can over time begin to harm aquatic life.⁶ Sand and gravel deposits are also plentiful surrounding the many brooks, ponds and lakes in Royalston as well as the floodplain alluvium areas. The alluvial sediment is commonly located in stream valleys.

The surficial topography in Royalston, includes variable features like harsh rock outcrops, mountains, waterfalls and rapids that were heavily influenced by the glaciers that moved through the area thousands of years ago. A ridge of ledgy hills extends through the middle of town from north to south adjoining Athol. Lawrence Brook travels through the hills from east to west, which continues, into Athol as Chestnut Hill. Royalston Common stands on this ridge. Some of the highest peaks in town are Harrington Hill (1,212 feet) in the eastern part of town, Gale Hill (1,053 feet) in the southwest and Bliss Hill (1,255 feet) in the northwest.⁷ Due to the rocky steep slope nature of this town, quite a few areas are unsuitable for farming or development and many residents left in the early days of settlement for employment elsewhere in woolen mills and land that would be usable for food and animals.

4.2 Landscape Character⁸

A warm friendly community of 1,254 residents, Royalston today has within its boundaries three waterfalls, state forests and thousands of acres of conservation land that all present a diversity of recreational opportunities to an appreciative public. Royalston is a wonderful place to go for a camping trip, canoeing, hiking, cultural lesson or scenic view of spectacular natural landscapes. Much like other surrounding communities, in addition to the magnificent natural landscape, Royalston also has a local historic district that contains Town Hall, the Village School (formerly known as the Raymond School) and the Post Office. In the early 1800s, the population centers of Royalston Common and South Royalston had industries like gristmills, tanneries,

⁶ Montachusett Regional Planning Commission, CEDS 2000

⁷ Massachusetts Atlas & Gazetteer, page 24.

⁸ Tom Musco, Planning Board Chair

cabinetmakers, woolen mills and furniture shops which eventually became obsolete as businesses closed and people moved to other places for more lucrative opportunities. Since the early 1900s, Royalston's commercial industries have never recovered or returned and it remains a rural bedroom community. Today, Royalston Center is a historic district consisting of 45 buildings. The majority of historic buildings are private homes, which were built by the mill owners. A former governor of Massachusetts built one of the homes in Royalston Center as a summer residence.

The town's abundance of natural, cultural and scenic resources has made preservation and protection of them the forefront of Royalston's planning activities. Spots like Doanes Falls, Royalston Falls, Spirit Falls, Jacobs Hill, Tully Lake and Recreation area, the many cemeteries, forests and wildlife areas all give the town unique characteristics that make it special to the people who live and visit there.

4.3 Water Resources

4.3.1 Rivers, Streams and Ponds

The Town of Royalston has many water features that include rivers, streams, waterfalls, rapids, brooks, ponds and wetlands. It is also one of 17 communities located in the Millers River Watershed, a watershed that drains an area of approximately 392 square miles. Located in north central Massachusetts, Millers River originates in New Hampshire flowing westward until it joins with the Connecticut River. Millers River has several well-known characteristics like its sharp elevation drop, rapid whitewater and beautiful waterfalls. However, the river was not always so inviting to Royalston and other surrounding communities. During the 1950s, pollution had become so prominent in the river that fishing and recreational activities were limited and discouraged. During the 1970s, the Millers River Watershed Council began a cleanup effort that was so successful that in 1983, the river was clean enough for fish restocking. Today, it provides ample recreational opportunities like camping, hiking and viewing scenic vistas as well as being a water resource to many communities.

Tully Dam, part of a 1,300-acre reservoir, is located on the eastern branch of the Tully River in Royalston and is part of a network of flood control dams along the Connecticut River and its tributaries. It was constructed between 1947-1949 and was first successfully operated in a 1949 storm before its official completion. The purpose of the dam is to reduce flood stages in Athol, Orange and other towns where the Millers River passes through. The total capacity of the dam is nearly 7 billion gallons of water, which it has never attained. In 1966, Tully Lake was created as a "summer recreation pool" for local residents. Over 700 acres, or 55% of wetlands in Royalston exist in this area. Also within Tully's Dam is a forest that consists mostly of white pine trees beneath which lies a sandy till left by glaciers over 100,000 years ago that favors this species.⁹

Another important flood control feature is the Birch Hill dam, which is located on Millers River in South Royalston. It is also a part of the flood control dam network on tributaries of the Connecticut River. At a cost of \$4 million, this dam was completed in 1941 to

⁹ US Army Corps of Engineers, "Tully Lake, Royalston, Massachusetts," [INTERNET] <http://www.nae.usace.army.mil/>, 25 November 2003.

help prevent the towns of Athol and Orange from sustaining damage like they did in the floods of 1936 and 1938. This dam has a much larger storage capacity, 16.3 billion gallons, than the Tully Dam. Birch Hill is also a reservoir area that provides 4,500 acres of land for multiple use recreation.

Major pollution discharges plague Millers River from various wastewater treatment plants that have been constructed over time. PCB's, chlorination, heavy metals, erosion, landfill leachate, storm water runoff and acid rain are all pollution sources that impair the high level of water quality throughout the entire Millers River watershed. The Montachusett Regional Planning Commission and the Franklin Regional Council of Governments, as a way to help guide future actions and identify areas of concern, completed a nonpoint source pollution assessment of Millers River.

In addition to the Millers River, its waterfalls, larger tributaries, and other major resources described below under "Scenic Resources & Unique Environments," Royalston has the following smaller water resources:

- Paine Swamp
- Dunham Brook
- Beaver Brook
- Little Pond
- Scott Brook
- Lawrence Brook

4.3.2 Wetlands and Floodplains

Several types of wetland features, vernal pools, floodplains and forested wetlands exist in Royalston. The biological diversity that occurs in such places helps to indicate when the area is vibrant and healthy and when it is being abused with pollution or overuse. Inland wetlands and floodplains perform functions such as flood storage (wetlands absorb water and release it slowly) and water filtration. Typically water that passes through wetland areas is purified from toxins and sediments in addition to providing food and shelter to a number of wildlife varieties. Because approximately six percent (6%) of the land in Royalston is considered to be water and wetlands and three percent (3%) is agricultural land, the town must strive to educate Royalston residents and visitors about such powerful and fragile resources to ensure their function and protection in the future.¹⁰

Major wetland resources can be found along Tully Lake, Long Pond, Falls Brook, Lawrence Brook, Millers River, Beaver Pond, Boyce Brook and Towne Brook.

According to the Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife,¹¹ as of May 2003, Royalston has

¹⁰ MassGIS, Land Use "lus255.dbf", [INTERNET] 15 March 2004.

¹¹ Information for this and the following two sections is drawn primarily from a May 6, 2003 letter from Patricia Swain, Ph.D., an ecologist with the Natural Heritage and Endangered Species Program.

thirty-four certified vernal pools and as many as one hundred potential vernal pools.¹² A number of clusters of potential vernal pools indicate particularly good habitat for species that depend on vernal pools. Such clusters mean that there are alternate habitats if something happens to one pool, and slightly different conditions in each may provide different habitats for pool-dependent species.

4.3.3 Aquifers

Although Royalston does not have any known major aquifers, the potential for this resource to be identified is there. The existence of floodplain alluvium and sand and gravel deposits (both potential aquifer materials) near the East Branch of the Tully River, Lawrence Brook, Millers River and Priest Brook can be identified as aquifer or potential aquifer areas. These areas should be protected for their contribution to the water bodies they surround and wetland areas throughout Royalston.

4.3.4 Water and Sewer

The overall water and sewer system in Royalston is fairly typical of a small town. In 2000, a total of 449 households existed with an average size of 2.79 persons per household. The number of total housing units (an actual physical structure) was 526 and the vacancy rate for those units was minimal at less than 2%. Royalston has not seen the growth that other nearby communities are dealing with in the past decade and for the most part, their water and sewer services remain adequate for their needs with capacities that have yet to be reached.

The South Royalston Improvement Corporation, a nonprofit organization, has been active since 1938 and provides water to 54 houses in South Royalston. In addition to serving private homes, this system also serves one restaurant and the Royalston Country Store. Many users find that having public water is convenient and cost effective at only \$216 annually. The water system was upgraded between 1995-1999 and a new 130,000-gallon water tank was built. All other homes and businesses in Royalston use their own private wells for water.¹³

The Town of Royalston Wastewater Treatment Facility is also located in South Royalston and it serves 63 houses for a total of 93 toilets. Homes that are not connected to this small treatment facility have private septic systems. Price ranges for

¹² Potential vernal pools visible on aerial photographs were interpreted and included by NHESP, though this data does not include every vernal pool in Massachusetts. Many vernal pools have not been identified due to unfavorable conditions in the landscape topography, pool physiography and/or photograph quality. Furthermore, vernal pool habitats occur in a wide variety of landscape settings, including forested swamps, bogs, and other wetlands. Vernal pools within these settings were not typically interpreted, but are nonetheless legitimate and valuable vernal pools. Also, field verification of all potential vernal pools in this study will identify errors such as the inclusion of features that are not actually vernal pools. Potential vernal pools identified in this survey are not to be confused with Certified Vernal Pools. Data pursuant to the official "Guidelines for the Certification of Vernal Pool Habitat" must be collected in the field and presented to the Massachusetts Natural Heritage & Endangered Species Program to obtain official certification for a vernal pool. Potential vernal pools identified in this survey do not receive protection under the Massachusetts Wetlands Protection Act Regulations (310 CMR 10.00), or under any other state or federal wetlands protection laws. MassGIS

¹³ Vicky Paine, Sewer Commissioner to Mary M. Coolidge, McGregor & Associates, 25 November 2003.

sewer service annually is between \$260-\$290 which for some people is more affordable than purchasing and maintaining a private septic system. The town contracts out the Plant Operator position but they remain responsible for any repairs or expenses that may occur and use their own yearly budget. This system has been in operation since 1971, and the most recent extension occurred in 1997 where 12 homes were added for service. Another feasibility study was completed in 2000 and while the sewer treatment facility has additional capacity, the town cannot finance the cost of another extension.¹⁴

4.3.5 Watersheds

See Section 4.3.1 above.

4.4 Vegetation

A variety of plant life exists in the forests, water bodies, grasslands, wetlands and floodplains of Royalston. Forests make up the majority of land cover in town (87%) and provide valuable scenic views, habitat and recreational opportunities to the entire area.¹⁵ Soil type, climate and elevation are major determinants for what types of vegetation will be able to exist. Both the Millers and Tully Rivers and other water features in Royalston provide area wildlife with food, habitat, nesting areas, protection from the elements and a natural food chain for survival. In addition to providing basic necessities for wildlife, these areas present local residents and visitors with the privilege of using them for hiking, trail walking, canoeing and other outdoor activities.

Royalston is located in the Northern/Transition Hemlock – White Pine forest zone of Massachusetts. The most frequently observed tree species in this type of forest include Beech, Sugar and Red Maple which are all hardwoods and Hemlock and White Pine which are softwoods. The transition areas often see a mix of Oak and Hickory trees and in sandier spots, White Pine. White Birch, Ash, Cherry, Paper, Black Birch, Elm, Basswood and Red Oak can also be seen in Royalston, although they are not as common.¹⁶ For comparison purposes, Royalston is also located in an area known as the Worcester/Monadnock Plateau, which is considered as a whole to harbor the most hilly and mountainous places in the central upland area of Massachusetts. Elevations can range from anywhere between 500-1,400 feet.¹⁷ Because Royalston is on a portion of Millers River, there may be identified or unidentified flood plain forests that have adapted to the periodic flooding. A flood plain forest may include elm, willow, silver maple, sycamore, green ash, box elder and cottonwood species that all flourish well with the rise and fall of the water. The National Heritage and Endangered Species program indicates that floodplain forests are the most significant, endangered wetland type in all of New England. Many forested wetlands have been destroyed for residential and commercial uses because they provide fertile soil and beautiful scenery, which is important to some people because the quality of the land is outstanding for building a home or business or for domestic uses like gardening.

¹⁴ *Ibid.*

¹⁵ MassGIS, Vector Data Library, "lus255.dbf," January 1999.

¹⁶ Massachusetts Forestry Association, "Common Forest Types in Massachusetts," [INTERNET] www.massforests.org, 1 December 2003.

¹⁷ Natural Heritage & Endangered Species Program, "Classification of the Natural Communities of Massachusetts", September 2001

While most of Royalston is relatively free of alien invasive species, the Common contains a significant amount of them. The dense (for Royalston) housing concentration, with many planted landscaping varieties, harbors a number of problem species such as Japanese barberry, Japanese honeysuckle, and bittersweet which serves as a seed source for the spread of these plants that can in turn displace native species. An effort to eradicate invasive plants from the Common could help prevent colonization of the rest of the town, which is now relatively free of such plants. Such an effort would require the cooperation of many landowners and a commitment of several years to accomplish. The village of South Royalston may need the same treatment.¹⁸

Approximately 16% of Royalston's forestry land is currently under the MGL Chapter 61 Forestland Tax Law. Chapter 61 allows landowners to participate and reduce their tax burden on their woodlands if they agree to leave the land undeveloped and in wood production in accordance with an approved forest management plan. Preserving and promoting forestry and forestry management in Royalston as an activity would not only increase the level of awareness of using and protecting forests as a resource, but it could also potentially add to the land in Chapter 61 programs.

In addition to many varieties of common wildlife and vegetation, the Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife identifies a number of rare plant species in Royalston:

- **Tiny Cow-Lily** (*Nuphar microphylla*): This water lily grows in ponds, lake margins, and slow streams. It was recently located from historical records. It is classified as "endangered" by NHESP and was located in Royalston in 2002.
- **Sand Violet** (*Viola adunca*): This violet lives in open, sandy habitat, and was recently located from historical records. It is classified as "endangered" by NHESP and was located in Royalston in 2001.
- **Adder's-Tongue-Fern** (*Ophioglossum pusillum*): This wetland plant is classified as "threatened" by NHESP and is indicated in Royalston through historical records from 1909.
- **Great Laurel** (*Rhododendron maximum*): This plant is classified as "threatened" by NHESP and is indicated in Royalston through historical records from 1919.

Royalston also has a variety of good quality natural communities. Within the prevailing forest are cliffs and wetlands that provide habitat to a diversity of common and uncommon plants and animals. The following natural communities were identified in 2000¹⁹:

- Acidic Rock Cliff Community
- Acidic Shrub Fen
- Forest Seep Community
- Inland Acidic Pondshore/Lakeshore

¹⁸ Glen Freden, Open Space and Recreation Committee, March 2004

¹⁹ Natural Heritage of Endangered Species

- Level Bog
- Shrub Swamp

The NHESP updated the state's "Estimated Habitat" and "Priority Habitat" maps at the end of 2003, which forms the basis for much of this information. This program also identifies the importance of management and monitoring of conservation lands as important priorities. For example, wetland health depends on ensuring water quantity and quality. Similarly, the control of invasive non-native species is crucial if native habitats and species are to be preserved.

4.5 Fisheries & Wildlife

In 2001, MassWildlife acquired four habitat areas in Royalston that will be protected and conserved for wildlife habitat and recreation activities. Birch Hill State (140 acres), Fish Brook (111 acres), Lawrence Brook (327 acres) and Millers River (52 acres) are now considered to be Wildlife Management Areas (WMA) and together, they total more than 600 acres. Located partially in Royalston and Athol is another portion of the Millers River designated as a WMA. Approximately 45 other habitat areas in Massachusetts were also protected this year through both Wildlands Stamp fees and Open Space bond funds.²⁰

Fish Brook WMA consists mostly of moderate to steep hillsides that makes access difficult. Access is possible via Butterworth Road and forestland owned by the Department of Environmental Management. Hardwood and conifer forest trees are dispersed throughout this land along with small portions of marsh habitat. Fish Brook, a stream that is home to brook trout runs in a north to south direction providing a water resource for native grouse, deer, hare, coyote, waterfowl and non-game species.

Lawrence Brook WMA comprises two parcels of land with access from North Fitzwilliam Road that is primarily hilly terrain. The area has a similar vegetation makeup to Fish Brook. A piece of Lawrence Brook, stocked with trout, and portions of several other brooks run through the area. The same types of animal species frequent this area as do Fish Brook.

Millers River WMA (including the area partially in Athol and Phillipston) contains eight parcels of hilly forest with extremely steep slopes and marshland. A mix of hardwood and conifer forest along with wooded and shrub swamp make up the habitat here. Because Millers River WMA is so huge, it also protects portions of smaller brooks in Royalston. Like Lawrence Brook, the Millers River is stocked with brook trout. In addition to the common wildlife that resides in this area, a number of pheasant are also stocked for hunting during the season.

Birch Hill WMA is another multi-parcel piece of land totaling 7,431 acres. MassWildlife owns 3,210 acres and the US Army Corps of Engineers leases the remaining 4,221 acres from the DEP. Because the area is so large, many habitats are represented. A general classification of it would be a conifer hardwood forest with open fields, brush lands and marshes throughout. The Otter and Millers Rivers flow in some portion of the

²⁰ Department of Fisheries and Wildlife, MassWildlife, "Wildlife Lands Acquired by MassWildlife," [INTERNET] www.state.ma.us/dfwele/dfw, 2 December 2003.

acreage and are both stocked trout waters. Smaller cold-water streams have native trout living in them. In addition to stocked pheasant, wild hare, deer, waterfowl, red and gray foxes and turkey, there are also blue heron and raptors that live there.²¹

Three official state forests, Royalston State Forest, Otter River State Forest, and Warwick State Forest are located in town in addition to the Wildlife Management Areas.

Many different species live in these areas and throughout Royalston. The Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife identifies a number of rare animal species in Royalston:

- **American Bittern** (*Botaurus lentiginosus*): According to NHESP, this is a secretive bird of marshes. They are classified as “endangered” by NHESP and were last seen in Royalston in 1993 in the eastern end of the Town in the Birch Hill Wildlife Management Area.
- **Wood Turtle** (*Clemmys insculpta*): These turtles use uplands for much of their lives, including foraging for food and nesting, although they depend on wetlands, including stream edges, for some foraging, their mating, and particularly for overwintering. They are classified as “special concern” by NHESP and were last seen in Royalston in 1999 in the eastern end of the Town in the Birch Hill Wildlife Management Area.
- **Spring Salamander** (*Gyrinophilus porphyriticus*): These salamanders live in cold, clean, fast-moving streams. They are classified as “special concern” by NHESP and were last seen in Royalston in 1992 in the very northernmost portion of the town, near the Royalston State Forest and the New Hampshire border.
- **Blue Spotted Salamander** (*Ambystoma laterale*): These salamanders breed in vernal pools but use surrounding uplands for most of their adult lives. They are classified as “special concern” by NHESP and were last seen in Royalston in 2000.
- **Triangle Floater** (*Alasmidonta undulata*): This rare mussel occurs in standing and moving water with clean, sandy cobble and gravel substrates. The Triangle Floater does not tolerate mud. It is classified as “special concern” by NHESP and was last seen in Royalston in 1997 in the southern portion of the Town.
- **Creeper** (*Strophitus undulatus*): This rare mussel occurs in standing and moving water with clean, sandy cobble and gravel substrates. It is classified as “special concern” by NHESP and was last seen in Royalston in 1997 in the southern portion of the Town.

4.6 Scenic Resources & Unique Environments

The Town of Royalston is fortunate to have multiple distinctive scenic spots that help give the town character and appeal. Its historical center surrounded by a breathtaking natural landscape makes Royalston’s rural quality enviable. The highest peaks in town

²¹ Department of Fisheries and Wildlife, MassWildlife, “Wildlife Lands Acquired by MassWildlife,” [INTERNET] www.state.ma.us/dfwele/dfw, 2 December 2003.

offer panoramic views of the local region and far off mountains in New Hampshire and Vermont. Scenic environments and unique properties in Royalston are listed below.

Trustees of Reservation Properties²²

- **Doane's Falls/Coddings Meadow:**

When the tranquil waters of Lawrence Brook reach Doane's Falls, they tumble in a sequence of dramatic waterfalls. Along the way, large boulders in the streambed, small-forested islands, and flat rock slabs divide the fast-rushing stream before it empties into Tully Lake.



On the southern bank of Lawrence Brook, just upstream from the falls, is Coddings Meadow, a little-known clearing in the wood that offers views of the quiet waters of Lawrence Brook and is an excellent launch site for exploring the brook by canoe or kayak. Further upstream, beaver dams dot the brook as it meanders through a wide red maple swamp. A half-mile trail leads down both sides of the stream. A three-quarter-mile woods road leads to the 14-acre Coddings Meadow along side of Lawrence Brook. Doane's Falls is a link in the Tully Trail. According to TTOR, swimming, diving, and wading at Doane's Falls have led to fatalities and serious injuries over the years. Following the latest fatality in August 2002, TTOR placed a temporary ban on all swimming, diving, and wading and began an immediate policy review. Seasonal hunting is permitted on the Coddings Meadow parcel associated with this property subject to all state and town laws.

- **Royalston Falls:** Concealed within a dense forest, the rushing waters of Royalston Falls have carved a deep gorge out of granite. Falls Brook plunges forty-five feet into a basin. In summer, ferns cling to the chasm's walls; in winter, freezing spray creates a fantastic landscape of ice. Upstream, the swirling brook has carved natural bridges through the bedrock. The wild and undisturbed appearance of the area today belies the landscape's history. For many years, the land was cleared and farmed. A farmer named Calvin Forbes owned the property in the 1840s, and, for a number of years, the cascade was known as Forbes Falls. During the 19th century, Royalston Falls was also the site of town picnics and gatherings in the summer months. Picnic tables, swings, and a staircase leading to the base of Royalston Falls once graced the area. Histories of the area



²² Descriptions and images courtesy of the Trustees of Reservations website, www.thetrustees.org.

even record the existence of a casino building at the top of the falls, where bands played music for dancers. The Reservation is a link in the Tully Trail and the Metacomet-Monadnock Trail. Seasonal hunting is permitted at this property subject to all state and town laws.

- **Jacob's Hill/The Ledges/Spirit Falls:**

Two miles of trails closely track the ridgeline of Jacobs Hill, passing through a forest of beech, maple, ash, and birch, and connecting two spectacular westward overlooks from exposed ledges. Both trails take in spectacular views of the forested slopes of Tully Mountain, Mount Grace, and the Berkshire Hills. Below is Long Pond and the East Branch of the Tully River, which winds slowly toward Tully Lake. Further south along the trail, a stream tumbles over the ridgeline, creating the dramatic Spirit Falls. At the eastern edge of the Reservation lies the source of Spirit Falls: Little Pond, a classic northern bog, whose concentric rings of black spruce and tamarack surround open water and a mat of sphagnum moss. The Reservation is a link in the Tully Trail. Seasonal hunting is permitted at this property subject to all state and town laws.



For more information on Trustees of Reservation properties, visit www.thetrustees.org.

Army Corps of Engineer Properties

- **Tully Lake/Tully Dam and Recreation Area:** This 1,300-acre reservation surrounding Tully Lake is owned and managed by the U.S. Army Corps of Engineers. Activities include hiking/walking, fishing, swimming, camping, bird watching, and kayaking/canoeing. Tully Lake is also located on the Tully Trail, linking with other local and regional open space, recreation, and wildlife areas. At the Tully Lake Campground, there are 35 tent-only campsites (including 15 waterfront sites) and 2 handicapped accessible sites all large enough for 2-3 tents. A picnic table, fireplace and cooking grill, public bathhouse with toilet, shower, drinking water and ice are amenities included with the campsite rental. Other features include a full time ranger during camping season, canoe and kayak rentals are available, firewood is for sale nearby, there is a volleyball court and horseshoe pit and in addition to the hiking trails, there are mountain biking trails.
- **Birch Hill Dam:** This 4,500-acre park on the Millers River is owned and managed by the U.S. Army Corps of Engineers. Activities include hiking/walking, fishing, swimming, camping, bird watching, and kayaking/canoeing, as well as cross-country skiing, ice fishing, snowshoeing, and dog sledding in the winter. Birch Hill has two

campgrounds, Lake Dennison (150 sites) and Otter River State Forest (100 sites) that are both operated by the state.

For more information on Army Corps of Engineer properties, visit www.nae.usace.army.mil/.

Regional Trails

- **Tully Trail:** This 18-mile loop trail circles through the western half of Royalston, as well as parts of Warwick and Orange. The trail is managed by the Trustees of Reservations, and connects Tully Lake, the Tully Flood Control Area, Royalston State Forest, Royalston Falls, Warwick State Forest (in Warwick), the Fish Brook Wildlife Management Area, Orange State Forest, Tully Mountain Wildlife Management Area (in Orange), and the Tully Dam. To the north the Trail connects with the Metacomet-Monadnock Trail. The trail was completed in 2001 as the first project of the recently formed North Quabbin Regional Landscape Partnership. For more information, visit http://www.thetrustees.org/pages/37_tully_trail.cfm.
- **Metacomet-Monadnock Trail:** This 117-mile trail connects the Metacomet Trail in Connecticut with Mount Monadnock in New Hampshire, crossing briefly through the northwest corner of Royalston. The trail is maintained by the Appalachian Mountain Club's Berkshire Chapter. For more information, visit <http://users.crocker.com/~mmtrail/>.

Other Local Scenic Areas and Unique Environments

- **Beaver Swamp**
- **Royalston Historic District**
- **Historic Cemeteries**
- **Ehrich Forest:** Owned and managed by the New England Forestry Foundation since 1979, this 126-acre forest is located on Prospect Hill in North Royalston.²³
- **Chase Memorial Forest:** Owned and managed by the New England Forestry Foundation since 1978, this 114-acre forest is located in South Royalston. According to the NEFF, this 114-acre forest will continue to produce timber and firewood while providing a diversity of habitat for wildlife.
- **Royalston Academy Conservation Land:** Approximately 80 acres, this land abuts Northeast Fitzwilliam Road north of Royalston Common. The Academy, who sold development rights to the land to the Commonwealth, still manages the land and added hiking, horseback riding and walking trails for local residents and visitors. Typical woodland areas of the region

²³ Information provided by NEFF at www.newenglandforestry.org.

like mixed hardwood make up the vegetative coverage. The Academy does have a management plan for the conservation land that includes a Chapter 61 plan.²⁴

- **Scenic Vistas and Roads:** The entire Town of Royalston can be regarded as one varied and beautiful series of vistas, including thousands of acres of 360-degree views. That said, especially notable vistas can be found at Jacob's Hill, the Ledges, the Royalston Bridges, the Fish Brook Wildlife Management Area, Coddings Meadow, and the various waterfalls trails, and historic areas mentioned above. The Town has designated all roads in Town, with the exception of Routes 32 and 68, as scenic roads under the local bylaw.

4.7 Environmental Challenges

Communities throughout the Commonwealth each have their own unique set of environmental challenges that affect open space and recreation, natural and cultural resources, wildlife and habitat. The Town of Royalston has the opportunity to improve the condition of their natural resources and the way in which they are managed.

4.7.1 Non-point Source Pollution

The pollution of Royalston's water and ground water resources is important to identify and manage for residents and wildlife that reside there. Non-point source pollution (NPS) is runoff that has been altered and contaminated by outside sources like salt and sand from roadways, failing septic systems, underground storage tanks, landfills, gas stations, agricultural runoff, fertilizer from lawns and other areas. These pollutants may enter into water bodies from where they originate or due to snowfall and rainfall thereby harming water quality. The challenge is to find a balance for these man-made pollutants and nature and to reduce the negative impact to a minimum or eliminate it completely. Part of that process is to have an appropriate monitoring and management in place to identify when levels are of concern and what measures should be taken to get them back to a healthy level.

NPS is a contributor to the degraded water quality of Millers River for example. Fortunately, there are ways to reduce the affects of NPS. Keeping storm drains that connect to our lakes, streams and rivers clear of debris, apply any lawn chemicals sparingly if at all, control soil erosion, minimize the amount of salt and sand added to roadways in winter months, encourage the development of construction/sediment ordinances in town, have septic systems pumped and inspected every 3-5 years, conduct further outreach and education to local residents about NPS and purchase environmentally friendly household cleaners.²⁵ The Town of Royalston has an opportunity to identify how much NPS is hurting their natural resources and formulate a plan for what they intend to implement as a protection measure.

²⁴ Tom Musco, Planning Board Chair to Mary M. Coolidge, McGregor & Associates 19 December 2003.

²⁵ US Environmental Protection Agency, "What You Can do to Prevent NPS Pollution," [INTERNET] www.epa.gov/owow/nps, 8 December 2003.

A detailed evaluation of NPS in the Millers River Watershed can be found in a report completed in July 2002 for the Massachusetts Department of Environmental Protection and the U.S. Environmental Protection Agency by the Montachusett Regional Planning Commission and the Franklin County Council of Governments, entitled “assessment of potential Non-Point Source Pollution for the Millers River in Massachusetts”.

4.7.2 Flooding

Several areas of Royalston historically prone to flooding have been improved since the construction of the Tully and Birch Hill Dams. However, smaller flooding instances still occur in town due to beavers and their dam construction. This problem is not unique to Royalston, but is common throughout Massachusetts.

Beavers were once almost non-existent in the Commonwealth but today, their population is flourishing. Two predators, the timber wolf and humans once helped control their population, however with the decline of the wolves and restrictions placed on hunting and trapping, control of beavers has dwindled. Beavers are protected by the Division of Fisheries and Wildlife and because their habitat is usually wetland area under the watchful eye of the Department of Environmental Protection, addressing the flood problems beavers create can be difficult. Some strategies that can be implemented before problems occur are proper design of roadways near water crossings with specific structure types like bridges, round, horizontal ellipse and pipe-arch culverts. Another strategy is to educate the town employees and residents about beavers and their lifestyles so that people know what to expect and how they can adjust their property that might be affected.²⁶ Action should be taken depending on what the consensus is as to how Royalston and state officials should proceed.

4.7.3 Hazardous Waste/Brownfields

The Massachusetts Department of Environmental Protection is responsible for keeping a database and enforcing the cleanup of sites that are contaminated with toxic or hazardous waste. As of December 5, 2003, Royalston had no sites on this list. Brownfields are considered to be “abandoned, idled or underused industrial and commercial properties where expansion or redevelopment is complicated by real or perceived contamination,” according to common definition. They can unfortunately create serious environmental and health threats to a community, are visually unappealing and developers traditionally shy away from them. Due to Royalston’s underdeveloped commercial and industrial activities, the number of these potential sites decreases dramatically. While Royalston might not currently have any designated Brownfield areas on DEP’s toxic or hazardous waste list, some adjacent communities have many sites listed like Templeton (35), Winchendon (50), Phillipston (3), Athol (60), Orange (50) and Warwick (5). Royalston could have hazardous waste sites in the future so because of that it will be important to monitor the status in town and surrounding areas.

²⁶ Division of Fisheries and Wildlife, “The Use of Water Flow Devices in Addressing Flooding Problems Caused by Beaver in Massachusetts”

4.7.4 Solid Waste Disposal

In August of 2003, the Royalston landfill (approximately 4 acres), located on Town Dump Road near the center of town, was officially capped and closed. The site has been operating as a transfer station since 1999 and there has been no solid waste added to the landfill since this time. The transfer station is surrounded by town owned land on all sides and managed by the Board of Health. There is one part time employee who works there during the open hours of Friday 1-4 and Saturday 8-2. The responsibility of the Board of Health is to continue to maintain the vegetative cover and active transfer and recycling center. Residents are responsible for delivering their trash and recycling to the transfer station where it is then shipped to one of several facilities nearby. Metal waste goes to a Greenfield facility, demolition waste goes to the Chicopee landfill, solid waste to the Gardiner landfill, paper waste to Fitchburg and bottles and cans go to a facility in Springfield. No environmental problems currently relate to this site but it will need to be closely monitored now and in the future.²⁷

4.7.5 Capacity

Royalston residents highly value the natural resources that are so abundant in their town and they have a strong desire to protect them. There is concern about water and air quality and the preservation of “rural small town character” and “scenic views” and the residents are concerned about wildlife and endangered species habitats. There is also an underlying concern about the overall increase of development in Royalston and other surrounding towns. As other suburbs become more crowded and built out, the push for home and land ownership continues to move further into the western part of the state. Due to the small size of Royalston, the town is unable to warrant monies for numerous paid professional staff, and they rely a considerable amount on volunteers. It will become increasingly important for the Town of Royalston to be firm about where they want development, what it should look like and what their natural resource and open space protection needs and preservation efforts are.

²⁷ Phil Leger, Board of Health to Mary M. Coolidge, McGregor & Associates, 24 December 2003.

Section 5: Inventory of Lands of Conservation & Recreational Interest

This section provides information about Royalston's current open space. The inventory matrix and maps include parks, forests, wildlife management areas, conservation lands, and significant other open space parcels drawn from data provided by the Town, MassGIS, MRPC, and the Mt. Grace Land Trust.

Determinations of each site's condition, recreational potential, and public access (via public transportation) were made based on observation by the Town's consultant.

The Open Space Matrix column headings are defined below.

- **Site Name:** Names the open space site.
- **Acres:** Gives the site's acreage or an approximation in cases of the non-park and playground parcels. One acre is 43,560 square feet or 1/640 of a square mile.
- **Owner:** Indicates the owner of the property and the agency or department responsible for managing and maintaining the parcel.
- **Level of Protection:** Indicates if the site, either by virtue of its zoning or by the fact that it has received state or federal funding, is protected from sale and building development (see below)
- **Public Access:** Indicates if the public can access the site.
- **ADA Access:** Indicates the degree to which the property is accessible to persons with disabilities (improved sites only, else "n/a")

Definition of Open Space

In this Plan, the term "open space" was defined as "all parks, forests, trails, playgrounds, and fields of significant size owned and managed for recreation, agriculture, or conservation uses."

Different Types of Protection

Open space within a Town, whether publicly or privately owned, can be protected against development in a number of different ways. The following are all forms of open space protection employed (or potentially employed) in Royalston. Of these types of protection, only protection through deed restrictions or funding through the LWCF or Self-Help programs (often requiring the placement of a deed restriction) are considered by the Division of Conservation Services to be "in perpetuity."

- **Land & Water Conservation Fund Protection/Self-Help Funding Protection:** In the case of many Royalston playgrounds, the receipt of grant funding affords these parcels protection as parklands, essentially in perpetuity. Note that for these properties the protection of Article 97 (below) would apply as well.

- **Article 97 Protection:** A codification of the “Public Trust Doctrine,” Article 97 of the Massachusetts Constitution protects all publicly owned lands used for conservation or recreation purposes. Before these properties can be sold, transferred, or even converted to a different use, this amendment requires a vote of the Town as well as a roll-call vote of the State House of Representatives and Senate.
- **Protection through Ownership (“Fee”):** In most cases in Royalston, the open space in question has been acquired in its entirety (“in fee”) by a public or private conservation interest—a State or Federal agency, or nonprofit organization such as the Trustees of Reservations or the New England Forestry Foundation. In many cases, such ownership will trigger other forms of protection, such as Article 97. If the owner is a nonprofit organization, the land could in theory be sold and/or developed, but doing so could contradict the group’s conservation purpose.
- **Protection through Conservation Restrictions, Easements, or other Deed Instruments:** Due to the high costs of acquiring land, it has become increasingly popular to acquire conservation restrictions limiting future development. Similarly, access easements can provide permanent public access to a property. In certain situations, deed restrictions or easements may be granted by a private party as part of a development approval process. As with any matters involving real property, care must be taken in the drafting of the restrictions to ensure the rights and interests of all parties are represented and clearly documented. Conservation Restrictions must be approved by the Board of Selectmen and the Massachusetts Division of Conservation Services. Chapter 61 for example is a way to help protect forestland in Massachusetts through encouraged preservation. Landowners who wish to ensure the long-term protection of forests may be offered helpful tax benefits. Should the owner wish to end the agreement, the town has the authority to recover tax benefits given and they have first right of refusal on the purchase of the land if it is to be sold for non-forestry purposes.

Inventory of Parcels of Conservation and Recreation Interest				
Site Name	Acres	Owner	Level of Protection	Public Access
Army Corps of Engineers Lands				
Tully Lake	1257.87	ACOE	Permanently Protected - Federal	Open
Tully Lake	380.99	ACOE	Permanently Protected - Federal	Open
Tully Lake	69.76	ACOE	Permanently Protected - Federal	Open
Subtotal:	1708.62			
Department of Environmental Management Lands				
Otter River State Forest	52.55	DEM	Permanently Protected - State	Open
Otter River State Forest	87.99	DEM	Permanently Protected - State	Open
Royalston State Forest	482.46	DEM	Permanently Protected - State	Open
Royalston State Forest	61.55	DEM	Permanently Protected - State	Open
Royalston State Forest	0.77	DEM	Permanently Protected - State	Open
Royalston State Forest	174.24	DEM	Permanently Protected - State	Open
Warwick State Forest	35.38	DEM	Permanently Protected - State	Open
Warwick State Forest	64.16	DEM	Permanently Protected - State	Open
Warwick State Forest	27.58	DEM	Permanently Protected - State	Open
Other Tully Initiative Land	174.00	DEM	Permanently Protected - State	
Subtotal:	1160.68			
Department of Fisheries, Wildlife and Environmental Law Enforcement				
Birch Hill WMA	513.78	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	116.78	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	43.70	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	1118.62	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	0.19	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	419.25	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	102.46	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	5.75	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	42.17	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	17.41	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	4.11	DFWELE	Permanently Protected - State	Open
Birch Hill WMA	78.68	DFWELE	Permanently Protected - State	Open
Fish Brook WMA	121.83	DFWELE	Permanently Protected - State	Open

Inventory of Parcels of Conservation and Recreation Interest				
Site Name	Acres	Owner	Level of Protection	Public Access
			Protected - State	
Fish Brook WMA	41.02	DFWELE	Permanently Protected - State	Open
Lawrence Brook WMA	82.33	DFWELE	Permanently Protected - State	Open
Lawrence Brook WMA	187.66	DFWELE	Permanently Protected - State	Open
Miller River WMA	8.20	DFWELE	Permanently Protected - State	Open
Miller River WMA	227.17	DFWELE	Permanently Protected - State	Open
Miller River WMA	10.00	DFWELE	Permanently Protected - State	Open
Miller River WMA	398.48	DFWELE	Permanently Protected - State	Open
Miller River WMA	101.44	DFWELE	Permanently Protected - State	Open
Miller River WMA	134.65	DFWELE	Permanently Protected - State	Open
Miller River WMA	100.69	DFWELE	Permanently Protected - State	Open
Miller River WMA	66.20	DFWELE	Permanently Protected - State	Open
Miller River WMA	7.28	DFWELE	Permanently Protected - State	Open
Tully Initiative Lands	248.80	DFWELE		
Subtotal:	4198.65			
The Trustees of Reservation Lands				
Coddings Meadow	4.25	TTOR	Permanently Protected - Private	Open
Doane's Falls	1.43	TTOR	Permanently Protected - Private	Open
Doane's Falls	28.77	TTOR	Permanently Protected - Private	Open
Jacobs Hill Reservation	156.12	TTOR	Permanently Protected - Private	Open
Royalston Falls	198.82	TTOR	Permanently Protected - Private	Open
Royalston Falls	12.01	TTOR	Permanently Protected - Private	Open
The Ledges	37.64	TTOR	Permanently Protected - Private	Open
Subtotal:	439.04			
Other Permanently Protected - Private				
Lawrence Brook WMA	15.83	DRAPER	Permanently Protected - Private	Open
Lawrence Brook WMA	58.65	DRAPER	Permanently Protected - Private	Open
Lawrence Brook WMA	4.68	DRAPER	Permanently Protected - Private	Open
CR #2	1.06	DRAZEN	Permanently Protected - Private	Closed
CR #2	5.08	DRAZEN	Permanently Protected - Private	Closed
CR #1	0.93	DYSERT	Permanently Protected - Private	Closed
CR #1	4.46	DYSERT	Permanently Protected - Private	Closed

Inventory of Parcels of Conservation and Recreation Interest				
Site Name	Acres	Owner	Level of Protection	Public Access
Lawrence Brook WMA	6.63	FREDEN	Permanently Protected - Private	Open
Lawrence Brook WMA	1.14	FREDEN	Permanently Protected - Private	Open
Lawrence Brook WMA	15.13	HARDIE	Permanently Protected - Private	Open
Lawrence Brook WMA	3.43	HARDIE	Permanently Protected - Private	Open
Lawrence Brook WMA	0.16	HARDIE	Permanently Protected - Private	Closed
Lawrence Brook WMA	0.09	HARDIE	Permanently Protected - Private	Closed
Tall Timbers	40.24	HARVARD UNIVERSITY	Permanently Protected - Private	Unknown
CR #1	0.60	HOPPS-SULLIVAN	Permanently Protected - Private	Closed
CR #1	5.30	HOPPS-SULLIVAN	Permanently Protected - Private	Closed
CR #2	1.44	HURLEY	Permanently Protected - Private	Closed
CR #2	7.65	HURLEY	Permanently Protected - Private	Closed
Lawrence Brook WMA	48.87	JACKSON	Permanently Protected - Private	Open
Lawrence Brook WMA	23.00	JACKSON	Permanently Protected - Private	Open
CR #2	0.22	LLDG REALTY TRUST	Permanently Protected - Private	Closed
CR #2	1.51	LLDG REALTY TRUST	Permanently Protected - Private	Closed
CR #1	0.62	MITCHELL	Permanently Protected - Private	Closed
CR #1	4.74	MITCHELL	Permanently Protected - Private	Closed
Miller River WMA	22.90	MUSCO	Permanently Protected - Private	Open
Miller River WMA	25.41	MUSCO	Permanently Protected - Private	Open
Chase Memorial Forest	48.08	NEFF	Permanently Protected - Private	Open
Chase Memorial Forest	64.22	NEFF	Permanently Protected - Private	Open
Ehrich Forest	25.16	NEFF	Permanently Protected - Private	Open
Ehrich Forest	97.13	NEFF	Permanently Protected - Private	Open
Royalston State Forest	127.73	PLOURDE	Permanently Protected - Private	Open
Miller River WMA	13.09	RABINOWITZ	Permanently Protected - Private	Open
Miller River WMA	3.87	RABINOWITZ	Permanently Protected - Private	Open
CR #2	0.22	SAULS FAMILY TRUST	Permanently Protected - Private	Closed
CR #2	6.61	SAULS FAMILY TRUST	Permanently Protected - Private	Closed
CR #2	0.02	SAULS FAMILY TRUST	Permanently Protected - Private	Closed

Inventory of Parcels of Conservation and Recreation Interest				
Site Name	Acres	Owner	Level of Protection	Public Access
Other Tully Initiative Lands (CRs)	2,889		Permanently Protected - Private	
Subtotal:	3208.24			
Tully Initiative Lands	2945.14			
GRAND TOTAL	10715.23			

Royalston also has the following lands temporarily preserved under the various provisions of G.L. c. 61, 61A, and 61B:

Chapter 61 Lands	
Chapter 61	2972.06
Chapter 61A	1341.21
Chapter 61 B	34.68
Subtotal:	4347.95

Section 6: Community Vision

6.1 Description of the Process

At the Open Space Planning Forum on February 11, 2003, residents were asked to discuss both general and specific attitudes related to open space and recreation. A presentation was made that outlined the planning process and presented demographic, land use and open space data pertaining to Royalston. Participants were then asked to answer the following questions:

- There will be changes in Royalston over time. What do you think are the special places or resource areas in Town that we should most try to protect or conserve?
- What opportunities for recreation do townspeople enjoy now in Royalston? What do you think are the recreation opportunities that we don't have but most need to gain?

Additionally, participants were asked to focus on identifying assets and problem areas with respect to open space and recreation resources in Royalston. A summary of these comments and results of the meeting can be found in Appendix B.

The ultimate outcome of this process was to draft an overall open space vision, as follows:

Royalston is neither an urban community nor a suburban one, but is instead a special kind of place becoming increasingly rare in New England, a place where town and community are deeply connected to the natural landscape and the local history. Open space and recreational opportunities do not need to be artificially manufactured or enhanced, only enjoyed in their abundance. Given this unique character, this Plan presents an overall vision of acknowledging, preserving, and enhancing existing opportunities and resources, without undue emphasis on developing new open space resources.

6.2 Statement of Open Space & Recreation Goals

In addition to the broad and overarching vision presented above, the Committee and residents also suggested a number of more specific goals for open space and recreation. These Goals can be grouped into “Substantive” goals to improve open space and recreation in the Town, and “Organizational” goals to create the administrative structures necessary to achieve these ends. Note also that the appearance of a goal or objective in these pages is not to imply that steps are not already being taken in this direction, but simply to stress the importance of continuing progress towards these ends.

Substantive Goals

- Preserve and maintain open fields and working landscapes
- Protect clean water and air

- Protect and preserve the small town character, scenic views, wildlife habitat and endangered species in Royalston
- Limit the amount and location of development to help address some town preservation concerns
- Selectively acquire additional properties for preservation and recreation where necessary and appropriate, with attention to the effects of preservation on municipal finances

Organizational Goals

- Improve public information concerning trails and other outdoor opportunities
- Continue to provide top-quality recreational and community opportunities for the Town's children and families
- Inventory and protect the Town's wildlife and habitat resources
- Encourage the Town of Royalston to accept land donated by outside parties
- Engage in additional cooperative protection efforts like the town purchase of land and zoning changes to protect open space

Section 7: Analysis of Needs

7.1 Resource Protection Needs

The Town of Royalston has an abundance of natural resources, open space and recreation opportunities that need to be protected. The small town character, rural charm and quality of life that have defined Royalston for decades are worth preserving and protecting.

Indicated on Map 3 “Habitat and Ecosystems” in Appendix A are data from the Natural Heritage and Endangered Species Program that includes an updated BioMap, of which Royalston has several key areas. BioMap areas show where it is important to maintain biodiversity in a community. Areas of Supporting Natural Landscape surround BioMap areas, and they are also highlighted on Map 3. These areas enhance the viability of the BioMap places in Royalston, which are on most of the eastern side of town, Lawrence Brook, along the Millers River and most of Tully River. Many of these areas already include protected open space, but some of it is still unprotected and would make a good target for land acquisition. Other land to target for acquisition is parcels that abut currently protected open space, especially those with vernal pools or other habitat, and large unfragmented conservation land. Also on Map 3 is the Living Water Critical Core Habitat data and its Critical Supporting Watersheds. The Core Habitat data represents the lakes, ponds, rivers and streams that are important for protecting the freshwater biodiversity in Royalston. The Supporting Watershed information shows those areas that have an immediate hydrologic effect or ability to sustain or degrade the Core Habitat. This information is important to map and refer to for protection, preservation, acquisition and development purposes.

The results from the February 2003 Open Space and Recreation public meeting and the opinion survey distributed thereafter revealed that people support specific town and state actions for the preservation of open space. For example, respondents support the town purchase of land, zoning changes, accepting donated land and development rights, cooperative protection efforts and the dedication of open space by developers. They also support the Commonwealth’s purchase of land and development rights and tax reduction programs for farm, forest and recreation land. However, when asked what they would personally do for open space protection, people were less interested in selling, giving or donating their land or money to the town or a land trust or rewriting their deed to limit future development. Considering that 92% of respondents were property owners, clearly people attach a certain land value to their property, and they expect to be compensated in some form for any land they would relinquish for land conservation. Eighty-eight percent feel it is important to preserve clean drinking water and air quality, and an additionally high number of people think that protecting forests (82%) streams, lakes and ponds (83%) should be a focus.

Overall, residents of Royalston think that local open space, sense of community, rural character, the Town Common, the village character of South Royalston and recreational facilities and activities have remained the same while they have lived in town (47% of respondents have lived here for at least four years). However, they see residential development as the most significant threat to Royalston’s sense of community and rural

character. So, while there may not have been an overwhelming amount of residential development in recent years, clearly people are worried about it happening sometime in the future. A number of people are also mildly concerned with the lack of planning efforts to help manage the future development of Royalston.

7.2 Land Acquisition

Although there is local interest in protecting open space and acquiring additional parcels, there is no internal mechanism in place to guide the decision-making process. Regardless of the reason for which a parcel may be desired by the town, there are no criteria defined to assist the town in determining whether a parcel should be purchased. If additional land is to be procured, it is important to know what criteria should be applied because it will be impossible for the town to purchase every parcel brought before them. This is particularly critical for land in the Chapter 61 program since the town has a very limited window of opportunity in which to exercise its right of first refusal and offer to buy the land.

There are a number of temporarily protected land parcels in Royalston that are in either the Chapter 61, 61A or 61B preservation programs. When land is removed from these programs, the Town has only 120 days to exercise its right of first refusal to purchase the property. With the numerous legal complications that can arise, as well as the procedural requirements that must be met for a municipal purchase of land, 120 days does not provide much leeway for the Town to exercise this right.

Any open space acquisition scheme—whether to preserve one acre or 10,000 acres — needs to address the issue of prioritization. Before any parcel is to be purchased, before any money is sought for preservation, the community must assess the natural values of the land (both objective and subjective measurements) and determine in advance which lands are the highest priorities to preserve. Such an approach contrasts sharply with the piecemeal, ad hoc decision-making processes that so often determine open space acquisitions.

Rather than waiting passively for opportunities to arise, the Town (or private land trust or other entity) must proactively seek preservation opportunities for the most valued parcels. Priorities stated clearly in advance can lead to such opportunities, whether as a result of grant funding, private donation, or contributions as a result of a land use approval process.

While the Town has “unofficially” adopted several criteria for open space purchases (mostly based on natural and water resource protection, waterfront location, and open space and habitat), it is recommended that more specific criteria be applied in future decision-making.

The OSRP and the Assessor’s records provide an inventory of all parcels that are currently in one of these programs. A more detailed field survey of each parcel will yield additional information regarding how the land compares with the criteria listed below. The goal of this assessment is to provide the Town with the decision-making tools to ascertain how the parcels should be prioritized and whether a particular parcel should be purchased when such an opportunity arises.

The most significant factors to consider include protection of regional or local drinking water sources, natural resources and scenic views, creation of regional and local networks of open spaces and trails, and maintaining the rural character of the Town. These factors have been repeatedly stressed in the goals and objectives and during the course of public participation forums held as part of the OSRP processes. Given the nature of the Miller's River watershed and potential non-point pollution sources as described in Section 4, open space acquisitions affecting water quality and within local watersheds should be considered for a high level of priority. An additional high priority should be the creation or extension of regional open space and trail networks that connect with those in other watershed towns. In no particular order, the specific criteria used to evaluate sites for purchase should include the following:

- Agricultural features such as open fields, the existence of prime agricultural soils, scenic views from and into agricultural land, visible stone walls, whether some portion of the land is currently in active agricultural use, and the presence of structures used in the agricultural setting (such as barns, silos, etc.). Additionally, is the land in close proximity to land with an existing Agricultural Preservation Restriction?
- Location of the parcel in relationship to other protected land including other land owned by the Town, the Commonwealth of Massachusetts, or other not-for-profit organizations such as conservation organizations or land trusts. Is the land adjacent to land set aside as a result of cluster or open space preservation development? Will it contribute to needed civic space near village centers or adjacent recreational areas? Is it located in a neighborhood currently underserved with respect to open space area?
- Does the land create new or expanded connections to an existing regional or local trail network for walking, hiking, biking, cross-country skiing, or other recreational opportunities? Can the land provide public access to water, or parking for beaches?
- Proximity to valuable regional or local environmental resources including existing and potential drinking water sources, wetlands, waterfront, ponds, lakes, streams, and significant vegetative and wildlife habitat or wildlife corridors (including habitat for rare or endangered species).
- Presence of scenic resources such as special landscape characteristics such as steep slopes and unique geological features, a view into the parcel or a view from the inside of the parcel to adjacent properties or scenic waterfront or coastal resources.
- Proximity to historic and cultural resources.
- Potential environmental problems with the site must be identified, particularly if there is a likelihood of a hazardous waste liability problem arising from previous uses at the site. Although this has not been a

significant problem in Royalston, some lands such as agricultural land, could present some problems from pesticide or herbicide residue, for example. Significant long-term legal and cost issues may place such a parcel in a lower priority classification. However, these problems are not insurmountable and if the costs for remediation are known, they can be managed and factored into the purchase price.

- Finally, the cost of the parcel needs to be considered, especially when compared with others. If the land has a high potential for development with few environmental constraints, it may cost more than an equivalently sized parcel with severe limitations on future development.

Theoretically, points can be assigned to these factors to assist in the decision-making process. Based upon the input received during the master planning process, priority can be given (or points assigned) to parcels that may exhibit characteristics from more than one category. For example, a piece of land that has agricultural features, contributes to a water supply area, and provides a connection with an existing trail network may receive more points and be given a higher place on the priority list than a parcel that only can demonstrate two of these factors. Conversely, points can be subtracted from any parcel that may raise hazardous waste liability or high cost factors.

7.3 Recreation and Community Needs

The 2003 OSRP survey also indicated what type of support exists for the enhancement of Royalston's open space and recreational opportunities. While the response to this question was not very high, the survey still shows that twenty-three percent (23%) of respondents would like to see a more concrete program in place for protection of wildlife and habitat conservation areas. Another area of opportunity would be to provide a public swimming area, particularly since the closing of the most popular one, Doane's Falls by the Trustees of Reservations. A swimming spot, either pond or pool would not only serve as an after school activity for local children, but it would fill a void in the recreation activities currently available in Royalston.

Other needs include hiking, skiing and horseback riding trails, children's play areas, an ice-skating rink or pond and a local café/pub to serve as a community gathering spot. People are interested in adding a well-known place to their town to allow residents to have an informal get together to say hello, read the morning newspaper or sit down with a glass of wine. The remainder of the recreation needs mentioned focus on outdoor activities. Clearly residents view Royalston as not only a place to live but also as a place that has an abundance of amazing natural features to be enjoyed while spending time outside.

The Town of Royalston, due to its small population does not have an overwhelming need for new and increased amounts of recreational facilities. Instead their focus should be on preservation, maintenance and protection. According to national standards, at a minimum, municipalities should adhere to park standards/developed open space of 6.25-10.50 acres per 1,000 persons. Listed below is a pared down list of existing recreational facilities.

According to the Town of Royalston's Accessibility Plan that was completed in September 2003, the recreation areas and playgrounds in town need some updating to be in compliance with the Americans with Disabilities Act. Currently, they are not meeting the needs of Royalston's handicapped citizens. An inventory of the facilities in Royalston indicated that some areas only need slight improvements to better accessibility. For example, several of the playgrounds and courts only require parking upgrades like signs and designated handicapped spots. Many sidewalks and curb ramps in the South Royalston area need upgrades because they are considered pedestrian travel ways. The Highway Department is responsible for doing this whenever sidewalks, walkways or curbs are repaired, constructed or curb cuts are required. Town Hall is fully accessible on the first floor and only minimally accessible upstairs so several modifications would be necessary for full compliance. Some problems are parking deficiencies, access limitations and bathroom and second floor access. Whitney Hall, a municipal office building needs much more extensive improvements as the facility is minimally accessible. Royalston should wherever possible extend its accommodations for handicapped citizens and visitors particularly when it pertains to outdoor recreation and respective facilities.²⁸

Field and Court Sports

Listed below is an up to date inventory of all the courts and fields Royalston has available for recreational activities.

RECREATIONAL FACILITIES	
Baseball/Softball Fields	Bullock Park (Town Common); Royalston Fish & Game (in Phillipston)
Soccer/Football Fields	Royalston Community School
Basketball Courts	Whitney Hall, Town Hall, Royalston Community School
Tennis Courts	4 private courts

Golf Courses

There was once a private golf course on Bullock Estate, although it is not maintained and is largely overgrown.

Playgrounds

The Town has playgrounds for children at Royalston Community School, Village School/Raymond School, Tully Lake, and Whitney Hall.

Swimming

- **Doane's Falls:** In August, 2002, swimming was banned by the Trustees of Reservations, following a fatal accident. Throughout the public process associated with this plan, a clear desire was expressed by the community to urge The Trustees to revisit this policy change.

²⁸ Town of Royalston Accessibility Plan, James M. Mazik, AICP, September 2003

- **Tully Lake:** According to the Army Corps of Engineers, swimming is generally allowed consistent with the following policy:
 - (a) Swimming, wading, snorkeling or scuba diving at one's own risk is permitted, except at launching sites, designated mooring points and public docks, or other areas so designated by the District Commander.*
 - (b) An international diver down, or inland diving flag must be displayed during underwater activities.*
 - (c) Diving, jumping or swinging from trees, bridges or other structures which cross or are adjacent to project waters is prohibited."*
 - (d) Swimming is prohibited at the Tully Lake boat ramp and near the dam's intake channel (behind log boom).*
- **Other Regional Swimming Areas:** A number of publicly accessible swimming areas are also found nearby to Royalston, including Silver Lake in Athol and Lake Dennison State Park in Winchendon.

Snowmobiling

There are a number of trails throughout the Town open to the public and maintained by private groups and users. Unaddressed conflicts do exist between snowmobilers and more passive users of these trails like hikers and cross-country skiers for example.

Passive Recreation Areas

There are many properties in Royalston that do not contain any buildings or formal recreation amenity that indicate their primary use. Their primary use is for passive recreation like walking, jogging and simply enjoying the scenery. Cemeteries, Green Spaces and Public Ways under this category include: Town Common, South Royalston Park, Gale Gates Cemetery, Newton Cemetery, Old Center Cemetery, Riverside Cemetery, Maple Cemetery, Lawrence Brook Cemetery, Butterworth Cemetery, Under-the-Hill Cemetery, Jonas Alliene Cemetery, Hillside Cemetery and various public ways.

7.4 Management Needs, Potential Change of Use

Due to the nature of this plan, the protection and preservation of open space and natural resources, as well as maintaining adequate recreational facilities, its implementation is perhaps the most important aspect. Ensuring that the plan will not sit on a shelf will be key to achieving some of the goals and objectives that residents and local officials highlighted. Thus, it is imperative that the town specifically designate an entity or board to be in charge of implementing the recommendations found in the Action Plan. Ideally, such an entity should be an Open Space and Recreation Committee as a standing committee of the town, appointed by the Board of Selectmen. Although other local boards or commissions such as the Conservation Commission or the Planning Board (or some other ad hoc committee) they may have numerous other responsibilities that may prevent them from focusing entirely on implementation of this plan.

The residents of Royalston expressed many thoughts, ideas and concerns that they have about their town that could be at least marginally addressed through some management changes, ownership of resources and organization partnering. Residents showed in the Open Space and Recreation survey that they would support any land acquisition pursued by the town. The town's Planning Board and Conservation Commission have expressed interest in open space acquisition deals as well, however, funding is an issue that will need to be addressed. The median household income in Royalston is just under \$45,000, so increasing the residential tax rate is not considered to be a practical solution for financing future land acquisition.

One challenge that receives frequent attention is the issue of the unpaved/dirt roads that exist in Royalston. The Town of Royalston owns a number of these dirt roads and is therefore responsible for maintaining them for usage. The problem is that as homebuyers continue to buy parcels and build homes along these dirt roads, the town has to respond by bringing the road up to a livable standard. Because of Royalston's limited resources, it is difficult for the town to do this. Part of the concern is that many of these dirt roads would be very expensive to upgrade, and the Town of Royalston cannot afford to pay for this cost. Upgrading poor road quality may also be a necessity so that rescue vehicles and the fire department would have access to these roads if people lived on them. The town has considered asking residents who have frontage on dirt roads to pay for the road improvement pursuant to an amendment to the subdivision regulations. Homeowners could reside on below standard roads if desired, but they would have to absorb the extra cost of maintenance for the roadway to and from their property. This solution would not only take the financial burden off of the town, but it may also serve as a form of growth management.

The Town of Royalston should also consider the possibility of maintaining additional properties as open fields (farms and pastures) so as to increase their appeal and value to residents. When faced with the decision to either sell or develop land that is not being used or maintained or saving land that is kept mowed/cleared and used for picnics or a soccer game, perhaps land owners and residents would think twice before giving up a precious slot of open space. As mentioned above, it is important to establish some criteria to determine whether a piece of land is worthy of purchase by the town, and for what purpose. Whether land is purchased using town fiscal resources, or through the use of other leveraged resources (such as a land trust or a private conservation easement), it should be given consideration.

Section 8: Goals & Objectives

Goals

In addition to the broad and overarching vision presented in Section 6, the Committee and residents also suggested a number of more specific goals for open space and recreation. These goals can be grouped into “substantive” goals to improve open space and recreation in the Town, and “organizational” goals to create the administrative structures necessary to achieve these ends. Note also that the appearance of a goal or objective in these pages is not to imply that steps are not already being taken in this direction, but simply to stress the importance of continuing progress towards these ends.

Substantive Goals

- Preserve and maintain open fields and working landscapes
- Selectively acquire additional properties for preservation and recreation where necessary and appropriate, with attention to the effects of preservation on municipal finances
- Enhance the recreation facilities that do exist and commit to their upgrade and maintenance
- Protect clean water and air
- Protect and preserve the small town character, scenic views, wildlife habitat and endangered species in Royalston
- Limit the amount and location of development to help address some town preservation concerns

Organizational Goals

- Improve public information concerning trails and other outdoor opportunities
- Continue to provide top-quality recreational and community opportunities for the Town's children and families
- Inventory and protect the Town's wildlife and habitat resources
- Encourage the Town of Royalston to accept land donated by outside parties
- Engage in additional cooperative protection efforts like the town purchase of land and zoning changes to protect open space

Goals & Objectives

Goal: Preserve and maintain open fields and working landscapes

Objectives:

1. Encourage private landowners to maintain open fields
2. Work with public agencies to increase use of properties as open fields
3. Review regulatory and other barriers to agricultural uses of land
4. Use state legislation and local regulation to protect and enhance open space

Goal: Selectively acquire additional properties for preservation and recreation where necessary and appropriate, with attention to the effects of preservation on municipal finances

Objectives:

1. Work with regional land trusts to prioritize remaining desirable properties for watershed protection, habitat and trail networks, and other uses as appropriate. Particular attention should be given to Chapter 61 land.
2. Research and explore alternatives to preservation that will maintain properties on the tax rolls, or provide payments in lieu of taxes

Goal: Enhance the recreation facilities that do exist and commit to their upgrade and maintenance

Objectives:

1. Promote the use of neighborhood recreation facilities like parks and courts
2. In accordance with the 2003 ADA study, make recreation areas, facilities and programs more accessible to the public
3. Where appropriate, link recreation opportunities together through sidewalks, trails or pathways

Goal: Protect clean water and air

Objectives:

1. Educate the public about statistics on local air and water quality
2. Research ways to incorporate into local guidelines the enforcement of clean air and water practices by businesses and residents

3. Consider putting into place penalties for mistreatment of water and air resources, particularly to people who come to Royalston for outdoor activities
4. Enforce the reduction of non-point source pollution

Goal: Protect and preserve the small town character, scenic views, wildlife habitat and endangered species in Royalston

Objectives:

1. Work with local Conservation Commission on public education of the natural resources, environments and animals that need to be protected in Royalston
2. Continue to identify and protect new animal and plant species
3. Encourage local business development, local owners, reuse and redevelopment of existing infrastructure
4. Review Zoning Bylaw to determine if they are consistent with town character preservation and wildlife habitat goals and objectives, adjust accordingly

Goal: Limit the amount and location of development to help address some town preservation concerns

Objectives:

1. Review Zoning Bylaw to determine if they are consistent with town character preservation and wildlife habitat goals and objectives, adjust accordingly
2. Target development into desired growth areas only
3. Consider creating additional historic districts in Royalston
4. Partner with other towns in the region to develop a regional preservation plan
5. Research and implement new subdivision control and growth mechanisms

Goal: Improve public information and access concerning trails and other outdoor opportunities

Objectives:

1. Designate regional recreation liaison to coordinate information
2. Prepare and distribute information in a variety of media and venues to build as wide a recreational constituency as possible

3. Ensure access to all open space for all demographic groups
4. Develop and maintain a website to include information about all trails and outdoor opportunities that would provide all necessary information for residents and visitors

Goal: Continue to provide top-quality recreational and community opportunities for the Town's children and families

Objectives:

1. Continue to maintain and manage existing facilities
2. Promote existing recreational opportunities
3. Periodically assess and evaluate recreational needs and resources

Goal: Inventory and protect the Town's wildlife and habitat resources

Objectives:

1. Continue to monitor health of existing species and habitats described in this Plan
2. Monitor and safeguard water quality in the Millers River and tributaries
3. Direct new development away from sensitive areas wherever possible
4. Enhance and protect the living environment of wildlife and habitat resources that currently are in Royalston through public education and preservation

Goal: Encourage the Town of Royalston to accept land donated by outside parties

Objectives:

1. Perform education and outreach to the public letting them know that the Town of Royalston is interested in private land acquisition
2. Formulate a relationship with local Land Trusts to assist Royalston in acquiring and preserving property
3. Set up a database of desired land parcels and who owns them, consider targeting the owners and educating them about land preservation
4. Offer incentives to property owners who donate their land to the Town of Royalston

Goal: Engage in additional cooperative protection efforts like the town purchase of land and zoning changes to protect open space

Objectives:

1. Use existing town regulations and create new town policy to protect and enhance open space
2. Use regional resources like the Montachusett Regional Planning Commission and other neighboring towns to help garner regional support for the acquisition and protection of open space

Section 9: Five-Year Action Plan

The five-year action plan is based on the goals and objectives of the previous section. To ensure the implementation on a year-to-year basis of these actions, the Town of Royalston should clearly identify a committee or board that will be in charge of ensuring this plan is used and followed. The committee that does so will be not only responsible for overall implementation of the Plan, but also for public outreach and education regarding actions being taken and to help make this effort successful.

The Five Year Action Plan is often the most difficult component of an Open Space Plan. Unlike the lofty goals and objectives of the previous sections, here is where the rubber meets the road, where our planning ideals are translated into concrete actions. An Action Plan can be difficult to commit to and be problematic to review over time. Items that have been accomplished fade from view, while the more intractable problems continue to haunt the town. Financial and political trends may change, advancing some items while leaving others untouched. For these reasons alone, many communities are hesitant to put in writing the full scope of their intentions.

In contrast, the following action plan intends to deliver on the promise of the goals and objectives expressed throughout this process, with a program of tangible steps for the Town to take over the next five years. There is a high level of activity on these issues, based upon the input received during the planning process.

These actions are targeted to address the physical as well as the organizational issues confronting the Town, as described and analyzed in Section 7. The five-year action plan described below works to correct these “process “ problems, while still maintaining a focus on the substantive issues of open space and recreation preservation, acquisition, enhancement, management, and maintenance.

Some of these actions may already be well underway; others are ongoing but need additional support. And while all actions listed are recognized as important, three areas in particular rise to the top as being absolutely essential for any future progress towards meeting the goals of this Plan:

- Obtaining “buy-in” from Town staff, commissions, and boards that open space is a central and lasting priority for the Town. While it is to be understood that there may be competing needs in the Town, all groups must abide by the central tenet that open space issues are extremely important to the residents of Royalston. Where open space and recreational resources are concerned, the goals and policies of this Plan and the members and staffs of the Town’s open space agencies must be consulted. Furthermore, groups must agree in advance on the proper decision making procedures to be followed in such matters.
- The creation of an Open Space Advisory Committee. Although there are many groups and departments active in open space and recreation issues, their activities are not coordinated or focused; there is no single consistent voice for open space needs in the Town. If the ambitious goals

and objectives of this Plan are to be achieved, there needs to be a single committee charged with overseeing this progress and coordinating the actions and priorities of the various groups.

- Securing additional sources of funding, staffing, and other support for open space and recreation activities and programs. The Town of Royalston is a small rural community with few municipal resources to achieve the goals of this Plan. Support may be found in the form of additional staffing and larger departmental budgets or in other, less conventional means sources, such as local business sponsorship, donated community labor or park “adoption”, and greater reliance on federal, state, and private grants.

[Note: The column marked “Priority” gives an indication of the weight given to this item in obtaining the overall goals and objectives of this plan. Priority can be understood to relate to both the “level of importance” of items and the necessary sequencing of them (i.e., without completing the first priority items, it may be difficult to proceed to the latter ones). In the tables, 1=highest/first priority, 4 = lowest/last priority.]

Five-Year Action Plan Summary

Year 1

Action	Priority	Completion Deadline	Lead Agency	Comments
Create permanent standing Open Space Advisory Committee ²⁹	1	2004	Board of Selectmen	This should be the top priority for plan implementation
Establish criteria for future open space acquisitions	1	2005	Committee	
Work with regional land trusts to prioritize remaining desirable properties for watershed protection, habitat and trail networks, and other uses as appropriate	2	2005	Committee	Mount Grace Land Conservation Trust and others
Conduct a public outreach and education program informing residents of the Town's desire to acquire and protect specific open space parcels and start a dialogue with land owners	3	ongoing	Committee	
Continue to maintain and manage existing facilities	3	ongoing	Board of Selectmen or Committee	

²⁹ Existing Committee can fill this role. If this Committee disbands and no replacement is established, the Conservation Commission will typically become the steward of open space resources. For the purposes of this action plan, it will be assumed that a Committee will be established. If not, the Conservation Commission will oversee open space issues and the Recreation Commission will be charged with recreational facilities.

Year 2

Action	Priority	Completion Deadline	Lead Agency	Comments
Explore options for new swimming area	1	2006	Committee	
Inventory and assess properties of interest and document their unique features and natural significance to the town	1	2006	Committee	Requires cooperative effort of private and public entities in Royalston
Set up a database of desired land parcels and who owns them, consider targeting the owners and educating them about land preservation	1	2006	Committee	
Prepare educational materials to assist in outreach regarding open space and natural resources in Town	2	2006 and ongoing	Conservation Commission	Work with neighboring communities for regional perspective
Review zoning bylaw for ways in which open space preservation can be enhanced and if it is consistent with town character preservation and wildlife habitat goals and objectives	2	2006 and ongoing	Planning Board	Consider zoning changes like cluster/open space residential subdivision design
Review regulatory and other barriers to agricultural uses of land	3	2006	Planning Board	
Work in partnership with Mount Grace Land Conservation Trust and state and federal conservation agencies to protect open fields in Royalston	3	ongoing	Committee	
Develop and maintain a website to include information about all trails and outdoor opportunities that would provide all necessary information for residents and visitors	3	2006	Committee (Or other designated party by the Committee)	
Continue to maintain and manage existing facilities	3	ongoing	Board of Selectmen or Committee	Continue to maintain and manage existing facilities
Prepare and distribute information in a variety of media and venues to build as wide a recreational constituency as possible	4	2006 and ongoing	Committee	

Year 3

Action	Priority	Completion Deadline	Lead Agency	Comments
In accordance with the 2003 ADA study, make recreation areas, facilities and programs more accessible to the public	1	2010	ADA Coordinator	It is anticipated that this will take some time due to the capital cost involved Contact other towns and regional land trusts
Designate regional recreation liaison to coordinate information	2	2007	Board of Selectmen or Committee	
Continue to maintain and manage existing facilities	3	ongoing	Board of Selectmen or Committee	
Monitor and safeguard water quality in the Millers River and tributaries	3	ongoing	Committee	
Periodically assess and evaluate recreational needs and resources	3	ongoing	Committee	

Year 4

Action	Priority	Completion Deadline	Lead Agency	Comments
Continue to maintain and manage existing facilities	1	ongoing	Board of Selectmen or Committee	
Periodically assess and evaluate recreational needs and resources	1	ongoing	Committee	
Consider creating additional historic districts in Royalston	2	2008	Historic Commission	

Year 5

Action	Priority	Completion Deadline	Lead Agency	Comments
Continue to maintain and manage existing facilities	1	ongoing	Board of Selectmen or Committee	
Periodically assess and evaluate recreational needs and resources	1	ongoing	Committee	
Start the process for reviewing and updating the Open Space and Recreation Plan for when it expires	1	ongoing	Committee	

Section 10: Public Comments

Section 11: References

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Appendix A: Maps

Appendix B: Public Participation Materials (flyers, surveys, handouts, etc.)

Royalston Open Space Plan

Public Meeting, February 11, 2003

Feedback Form & Questionnaire

[Use the back of this sheet if you need more space.]

1. **Do you think the objectives discussed at the meeting are generally on target? What improvements to the list would you suggest?**

- 2.a **What specific steps would you like to see Royalston take in the next 5 years?**

- 2.b **Which effort(s) might you help with?**

3. **What additional information do you think needs to be presented or discussed related to open space and recreation?**

4. **Would you be interested in assisting the Open Space and Recreation Plan Committee for the coming year?**

5. **Please note any other points you wanted to make but didn't have a chance to this evening.**

Your name: _____ Address: _____

Phone Number: _____ E-mail address: _____

Results of the Royalston Open Space Survey

In an effort to better understand the concerns and the priorities of the citizens of Royalston, the Royalston open space committee conducted a survey of residents, querying them both about resource protection, and about possible actions necessary to achieve these goals. The total number of respondents to this survey was 66. Below is a write-up of the responses to each of the questions.

1. How important is it to preserve the following resources in Royalston?

These findings confirm that the people of Royalston are concerned about their town in a variety of different areas. First, their desire to protect clean water and air reflects their concern that these resources will have directly on their lives, including their own health. After these most basic concerns, they also are concerned about “quality of life/character” issues, such as the look and feel of the town. They have expressed their concern about these quality of life issues by identifying “rural small town character” and “scenic views” as two resources that need to be preserved. Finally, the people of Royalston care about standard ecological issues such as wildlife habitat and endangered species habitat.

2. What would you be willing to do to preserve the resources you consider very important?

First, it should be noted that the proposition that got the highest amount of support (44% of respondents said they would support such a measure) was for “Voting For A Town Supported Land Acquisition Program”, while the proposition that got the least number of yes votes was “Contributing My Land To The Town, State Or A Land Trust”.³⁰ Here, respondents preferred methods of land preservation that involved collective action through democratic voting but which put the least amounts of constraints on their own land. Voting for a town supported land acquisition program requires the least amount of commitment of individual resources to an effort. 30 percent of respondents said that they would support “selling or donating a conservation restriction to protect my land from future development”, and next (27 percent) said that they would support “donating money to buy land”. The proposition that got the fewest number of “yes” votes, and the largest number of “no” votes was “contributing my land to the town, state or a land trust”. This means that people attach a certain land value to their property, and they expect to be compensated in some form for any land they would relinquish for land conservation.

³⁰ The converse is also true, namely that “Voting For A Town Supported Land Acquisition Program” got the fewest number of “no” votes, while the proposal “Contributing My Land To The Town, State Or A Land Trust” got the highest number of “no” votes.

3. What town actions do you support to preserve the resources you consider very important?

In the case of possible town actions, the results show that the least controversial action the town could take (and the one that would garner the most support) is if the town accepted land donated by outside parties. (89 percent of respondents either “strongly supported” or “supported” this proposal). Next on the list is to engage in “cooperative protection efforts” which 76 percent of people either strongly supported or supported. After these two less-controversial propositions, the next two most popular propositions (those that were either “strongly supported” or “supported”) were “town purchase of land” and “zoning changes to protect open space”. These two are interesting because they both represent a major commitment of public resources (either of funds or of time) to achieve open space protection. The least favorable action possible by the town was that it do nothing whatsoever. This was roundly rejected by respondents (only 8 percent spoke in favor of it).

4. What state actions do you support to preserve the resources you consider very important?

The state action most preferred by Royalston residents to preserve the resources they considered most important is a property tax reduction for farm, forest and recreational uses. This incentive-based provision, which does not provide permanent protection for land, is found in M.G.L Chapters 61, 61A and 61B. 82 percent said they “strongly supported” or “supported” this. After that, the next most popular action was that the state directly purchase land. 64 percent said they “strongly supported” or “supported” this. Finally slightly under 50 percent of respondents support in some way the purchase development rights by the state. While the property tax reduction land preservation offers an incentive-based solution, but not a permanent solution for open space preservation, state purchase of land that was then designated for open space would offer a much more permanent response.

5. How has the quality of the following changed since you've lived in Royalston?

The component that the residents of Royalston are most worried about, with regard to the change over the last 5 years, is the “rural character” of the place has “gotten worse”. The next biggest area of concern is that open space has “gotten worse” which indicates that that people must perceive that the amount of open space had diminished over time. After this, the “village character of South Royalston” has also “gotten worse”. All of these responses point to the concern that people have about the amount and location of the development that is taking place in Royalston. It also ties in very well with the concerns expressed in the question 1, where people identified as one of the resources they sought to preserve the town’s “rural small-town character.”

Conversely, some components have gotten better over the last 5 years, including recreational programming and recreational facilities and the town common.

6. In your opinion what are the most significant threats to Royalston's sense of community and rural character?

The greatest threat to Royalston's sense of community and character, as identified by the residents, is the growth in residential development in the town and the lack of a plan for managing future development in town. Interestingly, the lowest concern on this chart was "high property taxes".

7. Please rank top five facilities/programs needed for Royalston.

The facility/program identified by the citizens of Royalston as the "most needed" was a wildlife habitat area, followed by a public swimming area. This reflects the different interests that the people of Royalston have, and associate with, open space protection. On the one hand, they seek a very human-centered recreational opportunity (swimming pool), and on the other, they have a concern for the non-human environment, and identify a need to protect and strengthen it.

Concluding Remarks

Taken altogether the responses of these questions indicate the sense of concern on the part of the people of Royalston about the where their town is headed and what tools they have to address them.

The people of Royalston are unnerved by the lost of local character and feel of their place. They are worried about the loss of open space in their town. And they want both the local town and the state to act to help them preserve it.

Appendix C: ADA Access Self-Evaluation

Appendix D: 2000 U.S. Census Data

Appendix E: EOE/MRPC Build Out Analysis